


**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**
**NOTICE OF ALLOWANCE AND ISSUE FEE DUE**

IMS2/0424

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 LOS ANGELES CA 90071

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
09/531,545	03/20/00	005	DIAMOND, A 1753	04/24/01
First Named Applicant	HAYASHI, 35 USC 154(b) term ext. = 0 Days.			

TITLE OF INVENTION PHOTOVOLTAIC MODULE

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
1	008651-20023	136-251.000	F50	UTILITY	NO \$1240.00	07/24/01

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.**

**THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.**

**HOW TO RESPOND TO THIS NOTICE:**
**I. Review the SMALL ENTITY status shown above.**

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

**II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.**

**III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.**

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

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Washington, D.C. 20231

HW

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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008651,545 03/20/00 HAYASHI

A 008651-20023

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LOS ANGELES CA 90071

IM52/0424

EXAMINER
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DIAMOND, A

ART UNIT	PAPER NUMBER
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1753

8

DATE MAILED:

04/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Notice of Allowability

Application No.

09/531,545

Examiner

Alan Diamond

Applicant(s)

HAYASHI ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed April 2, 2001.
2. ☒ The allowed claim(s) is/are 1 and 3-7.
3. ☒ The drawings filed on 20 March 2000 are acceptable as formal drawings. ✓
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some\* c) ☐ None of the:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).  
\* Certified copies not received: \_\_\_\_\_.
5. ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE FOR SUBMITTING NEW FORMAL DRAWINGS, OR A SUBSTITUTE OATH OR DECLARATION. This three-month period for complying with the REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL is extendable under 37 CFR 1.136(a).**

6. ☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
7. ☐ Applicant MUST submit NEW FORMAL DRAWINGS  
(a) ☐ including changes required by the Notice of Draftperson's Patent Drawing Review( PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.  
(b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the examiner.  
(c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftperson.

8. ☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any reply to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE / SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

## Attachment(s)

- 1 ☒ Notice of References Cited (PTO-892)  
3 ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
5 ☒ Information Disclosure Statements (PTO-1449), Paper No. 7.  
7 ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 2 ☐ Notice of Informal Patent Application (PTO-152)  
4 ☒ Interview Summary (PTO-413), Paper No. 8.  
6 ☒ Examiner's Amendment/Comment  
8 ☒ Examiner's Statement of Reasons for Allowance  
9 ☐ Other

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Louis Mok on April 12, 2001.

The application has been amended as follows:

#### In The Claims

In claim 1, at line 4, please delete "said" and insert in its place --the--.

In claim 7, at line 8, after the second occurrence of "in" please insert --a--.

2. The following is an examiner's statement of reasons for allowance: With respect to claim 1, the prior art does not teach or suggest the combination of limitations that the encapsulation material is arranged on the principal surface of the substrate without its end face projecting outwardly beyond an end face of the substrate, and that the end face of the encapsulation material defines a first slope, and the end face of the substrate defines a second slope parallel to the first slope (see instant Figure 1). Hattori et al (U.S. Patent 5,578,142) is a pertinent reference. However, Hattori et al does not teach or suggest claim 1 because, although its encapsulation material (17) has sloped ends, the substrate (1) does not have sloped ends.

Independent claim 4 is not taught or suggested by Ishikawa et al (U.S. Patent 5,507,880) since claim 4 now requires that the steam barrier material at the periphery is different from the principal encapsulation material. In Ishikawa et al, they are the same.

With respect to claim 5, Inoue et al (U.S. Patent 5,252,141) does not teach or suggest that the output lead-out wire has a parallel section extending over a part of the rear surface encapsulation material, and wherein another part of the rear surface encapsulation material extends over the output lead-out section and the parallel section of the output lead-out wire (see instant Figures 11-13). Hanoka (U.S. Patent 5,733,382) is hereby made of record, and its Figures 7 and 8 are pertinent to claim 5. In said Figures 7 and 8, the lead-out wire (70) has a parallel section extending over the rear surface encapsulation material (50). However, Hanoka does not teach or suggest another part of the rear surface encapsulation material extending over the output lead-out section and the parallel section of the output lead-out wire.

None of the prior art teaches or suggests the methods of manufacturing a photovoltaic module in claims 6 and 7.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

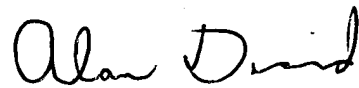
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan Diamond whose telephone number is 703-308-

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0840. The examiner can normally be reached on Monday through Friday, 6:30 a.m. to 3:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on 703-308-3322. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Alan Diamond  
Primary Examiner  
Art Unit 1753

Alan Diamond  
April 16, 2001